CLAIMS

- 1. A photosensitive composition for an interlayer insulation film, characterized by comprising: a modified polysilsesquiazane having a weight average molecular weight of 500 to 200,000 comprising basic constitutional units represented by formula [SiR¹(NR²)_{1.5}]- wherein R¹′s each independently represent an alkyl group having 1 to 3 carbon atoms or a substituted or unsubstituted phenyl group; R²′s each independently represent hydrogen, an alkyl group having 1 to 3 carbon atoms, or a substituted or unsubstituted phenyl group, up to 50% by mole of said basic constitutional units having been replaced by a linking group other than the silazane bond; a photoacid generating agent; and a basic material.
- 2. The photosensitive composition for an interlayer insulation film according to claim 1, wherein said modified polysilsesquiazane further comprises 0.1 to 100% by mole, based on said basic constitutional units, of other constitutional -[SiR³2NR²]formulae units represented by $[SiR^3_3(NR^2)_{0.5}]$ - wherein R^3 's each independently represent hydrogen, an alkyl group having 1 to 3 carbon atoms, or a substituted or unsubstituted phenyl group; and R2's each independently represent hydrogen, an alkyl group having 1 to 3 carbon atoms, or a substituted or unsubstituted phenyl group.
- 3. The photosensitive composition for an interlayer insulation film according to claim 1 or 2, wherein said linking group is represented by formula (I):

$$\begin{pmatrix}
R^4 \\
Si-O \\
R^5
\end{pmatrix}_{p}$$
(I)

wherein R⁴ and R⁵ each independently represent hydrogen, or an alkyl, alkenyl, cycloalkyl, aryl, aralkyl, alkylamino, alkylsilyl, or alkoxy group; and p is an integer of 1 to 10. 4. The photosensitive composition for an interlayer insulation film according to claim 1 or 2, wherein said linking group is represented by formula (II):

$$\frac{\begin{pmatrix} R^{6} \\ I \\ S_{i} - R^{10} \end{pmatrix}}{\begin{pmatrix} S_{i} - NR^{2} - I \\ R^{7} \end{pmatrix}} = \frac{R^{8}}{S_{i} - NR^{2}} - I \qquad (II)$$

wherein R⁶, R⁷, R⁸, and R⁹ each independently represent an alkyl, alkenyl, cycloalkyl, aryl, aralkyl, alkylamino, alkylsilyl, or alkoxy group; R¹⁰ represents an oxygen atom or an alkylene, alkenylene, cycloalkylene, arylene, alkylimino, or alkylsilylene group; R²'s each independently represent hydrogen, an alkyl group having 1 to 3 carbon atoms, or a substituted or unsubstituted phenyl group; and q is an integer of 1 to 10.

- 5. The photosensitive composition for an interlayer insulation film according to claim 4, wherein R^6 , R^7 , R^8 , and R^9 represent a methyl group, R^{10} represents a phenylene group, R^2 represents hydrogen, and q is 1.
- 6. The photosensitive composition for an interlayer insulation film according to any one of claims 1 to 5, wherein said photoacid generating agent is selected from the group consisting of sulfoxime compounds and triazine compounds.
- 7. The photosensitive composition for an interlayer insulation film according to any one of claims 1 to 6, wherein said basic material is selected from the group consisting of higher amines, hindered amines, and alkanolamines.
- 8. The photosensitive composition for an interlayer insulation film according to any one of claims 1 to 7, which further comprises 0.1 to 40% by mass, based on the photosensitive composition, of a dissolution preventive selected from the group consisting of t-butoxycarbonylated catechol, t-

butoxycarbonylated hydroquinone, t-butyl benzophenone-4,4'-dicarboxylate, and t-butyl 4,4'-oxydibenzoate.

- 9. The photosensitive composition for an interlayer insulation film according to any one of claims 1 to 8, which further comprises a nitro- or carbonic ester-containing water-soluble compound as a shape stabilizer.
- 10. The photosensitive composition for an interlayer insulation film according to any one of claims 1 to 8, which further comprises a sensitizing dye.
- A method for forming a patterned interlayer insulation 11. film, characterized by comprising: forming a coating of a photosensitive composition for an interlayer insulation film, modified polysilsesquiazane, comprising а а photoacid generating agent, and a basic material, said modified polysilsesquiazane having a weight average molecular weight of 200,000 comprising basic constitutional represented by formula $-[SiR^1(NR^2)_{1.5}]$ - wherein R^{1} 's each independently represent an alkyl group having 1 to 3 carbon atoms or a substituted or unsubstituted phenyl group, R²'s each independently represent hydrogen, an alkyl group having 1 to 3 carbon atoms, or a substituted or unsubstituted phenyl group, up to 50% by mole of said basic constitutional units having been replaced by a linking group other than a silazane bond; exposing said coating pattern-wise to light; dissolving and removing the coating in its exposed area; and subjecting the residual patterned coating in an ambient atmosphere to standing or baking.